SEQUENCE LISTING

<110> Luche, Ralf M.
Wei, Bo

<120> DSP-3 DUAL-SPECIFICITY PHOSPHATASE

<130> 200125.408

<140> US
<141> 2000-04-06

<160> 18

<170> FastSEQ for Windows Version 4.0

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<212> DNA
<213> Homo sapien

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acatcggcaa cttcaaagat gccagagacg cggaacaatt gagcaagaac aaggtgacac 180
atattctgtc tgtccacgat agtgccaggc ctatgttgga gggagttaaa tacctgtgca 240
tcccagcagc ggattcacca tctcaaaacc tgacaagaca ttccaaagaa agtatttaaat 300
tcattcacga gtgccggctc cgcggtgaga gctgccttgt acactgcctg gccgggtctt 360
ccaggagcgt gacactggtg atcgcataca tcatgaccgt cactgacttt ggctgggagg 420
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gacagctcca ggagtttgag aagcatgagg tccatcagta tcggcagtgg ctgaaggaag 540
aatatggaga gagcccttg caggatgcag aagaagccaa aaacattctg gccgctccag 600
gaattctgaa gttctgggcc tttctcagaa gactgtaatg tacctgaagt ttctgaaata 660
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<210> 2
<211> 184
<212> PRT
<213> Homo sapien

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1 5 10 15
Phe Lys Asp Ala Arg Asp Ala Glu Gln Leu Ser Lys Asn Lys Val Thr
20 25 30
His Ile Leu Ser Val His Asp Ser Ala Arg Pro Met Leu Glu Gly Val
35 40 45
Lys Tyr Leu Cys Ile Pro Ala Ala Asp Ser Pro Ser Gln Asn Leu Thr
50 55 60
Arg His Phe Lys Glu Ser Ile Lys Phe Ile His Glu Cys Arg Leu Arg

65 70 75 80
Gly Glu Ser Cys Leu Val His Cys Leu Ala Gly Val Ser Arg Ser Val
85 90 95
Thr Leu Val Ile Ala Tyr Ile Met Thr Val Thr Asp Phe Gly Trp Glu
100 105 110
Asp Ala Leu His Thr Val Arg Ala Gly Arg Ser Cys Ala Asn Pro Asn
115 120 125
Val Gly Phe Gln Arg Gln Leu Gln Glu Phe Glu Lys His Glu Val His
130 135 140
Gln Tyr Arg Gln Trp Leu Lys Glu Glu Tyr Gly Glu Ser Pro Leu Gln
145 150 155 160
Asp Ala Glu Glu Ala Lys Asn Ile Leu Ala Ala Pro Gly Ile Leu Lys
165 170 175
Phe Trp Ala Phe Leu Arg Arg Leu
180

<210> 3
<211> 10
<212> PRT
<213> Homo sapien

<400> 3
Val His Cys Leu Ala Gly Val Ser Arg Ser
1 5 10

<210> 4
<211> 23
<212> PRT
<213> Homo sapien

<400> 4
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1 5 10 15
Asn Ile Leu Ala Tyr Leu Met
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D1 Cont

<210> 5
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding
DSP-3

<400> 5
gacctcatgc ttctcaaact cctg 24

<210> 6
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding
DSP-3

<400> 6
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<210> 7
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding DSP-3

<400> 7
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<210> 8
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding DSP-3

<400> 8
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<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding DSP-3

D' Cont

<400> 9
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<210> 10
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer used to obtain full length cDNA encoding DSP-3

<400> 10
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<210> 11
<211> 170
<212> PRT
<213> Homo sapien

<400> 11

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            20                  25                  30
Leu Tyr Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Glu
        35                  40                  45
Glu Phe Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn
    50                  55                  60
Leu Phe Glu Asn Ala Gly Glu Phe Lys Tyr Lys Gln Ile Pro Ile Ser
65                  70                  75                  80
Asp His Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser
                85                  90                  95
Phe Ile Asp Glu Ala Arg Gly Lys Asn Cys Gly Val Leu Val His Cys
            100                 105                 110
Leu Ala Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met
        115                 120                 125
Gln Lys Leu Asn Leu Ser Met Asn Asp Ala Tyr Asp Ile Val Lys Met
    130                 135                 140
Lys Lys Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu
145                 150                 155                 160
Asp Phe Glu Arg Thr Leu Gly Leu Ser Ser
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<210> 12
<211> 168
<212> PRT
<213> Homo sapien

<400> 12

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Pro Ser Ser Gln Pro Ala Phe Pro Val Gln Ile Leu Pro Tyr Leu Tyr
            20                  25                  30
Leu Gly Cys Ala Lys Asp Ser Thr Asn Leu Asp Val Leu Gly Lys Tyr
        35                  40                  45
Gly Ile Lys Tyr Ile Leu Asn Val Thr Pro Asn Leu Pro Asn Ala Phe
    50                  55                  60
Glu His Gly Gly Glu Phe Thr Tyr Lys Gln Ile Pro Ile Ser Asp His
65                  70                  75                  80
Trp Ser Gln Asn Leu Ser Gln Phe Phe Pro Glu Ala Ile Ser Phe Ile
                85                  90                  95
Asp Glu Ala Arg Ser Lys Lys Cys Gly Val Leu Val His Cys Leu Ala
            100                 105                 110
Gly Ile Ser Arg Ser Val Thr Val Thr Val Ala Tyr Leu Met Gln Lys
        115                 120                 125
Met Asn Leu Ser Leu Asn Asp Ala Tyr Asp Phe Val Lys Arg Lys Lys
    130                 135                 140
Ser Asn Ile Ser Pro Asn Phe Asn Phe Met Gly Gln Leu Leu Asp Phe
145                 150                 155                 160
Glu Arg Thr Leu Gly Leu Ser Ser
                165
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<210> 13
<211> 170
<212> PRT
<213> Homo sapien

<400> 13
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1 5 10 15
Gln Pro Cys Leu Pro Val Pro Ser Val Gly Leu Thr Arg Ile Leu Pro
20 25 30
His Leu Tyr Leu Gly Ser Gln Lys Asp Val Leu Asn Lys Asp Leu Met
35 40 45
Thr Gln Asn Gly Ile Ser Tyr Val Leu Asn Ala Ser Asn Ser Cys Pro
50 55 60
Lys Pro Asp Phe Ile Cys Glu Ser Arg Phe Met Arg Val Pro Ile Asn
65 70 75 80
Asp Asn Tyr Cys Glu Lys Leu Leu Pro Trp Leu Asp Lys Ser Ile Glu
85 90 95
Phe Ile Asp Lys Ala Lys Leu Ser Ser Cys Gln Val Ile Val His Cys
100 105 110
Leu Ala Gly Ile Ser Arg Ser Ala Thr Ile Ala Ile Ala Tyr Ile Met
115 120 125
Lys Thr Met Gly Met Ser Ser Asp Asp Ala Tyr Arg Phe Val Lys Asp
130 135 140
Arg Arg Pro Ser Ile Ser Pro Asn Phe Asn Phe Leu Gly Gln Leu Leu
145 150 155 160
Glu Tyr Glu Arg Thr Leu Lys Leu Leu Ala
165 170

<210> 14
<211> 168
<212> PRT
<213> Homo sapien

<400> 14
Pro Ala Gln Ala Leu Pro Pro Ala Gly Ala Glu Asn Ser Asn Ser Asp
1 5 10 15
Pro Arg Val Pro Ile Tyr Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
20 25 30
Tyr Leu Tyr Leu Gly Ser Cys Asn His Ser Ser Asp Leu Gln Gly Leu
35 40 45
Gln Ala Cys Gly Ile Thr Ala Val Leu Asn Val Ser Ala Ser Cys Pro
50 55 60
Asn His Phe Glu Gly Leu Phe His Tyr Lys Ser Ile Pro Val Glu Asp
65 70 75 80
Asn Gln Met Val Glu Ile Ser Ala Trp Phe Gln Glu Ala Ile Ser Phe
85 90 95
Ile Asp Ser Val Lys Asn Ser Gly Gly Arg Val Leu Val His Cys Gln
100 105 110
Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Ile Gln
115 120 125
Ser His Arg Val Arg Leu Asp Glu Ala Phe Asp Phe Val Lys Gln Arg
130 135 140
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145 150 155 160
Leu Glu Thr Gln Val Leu Cys His
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D' Cont

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<211> 169
<212> PRT
<213> Homo sapien

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20 25 30
Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ser Arg Lys Asp Met Leu
35 40 45
Asp Ala Leu Gly Ile Thr Ala Leu Ile Asn Val Ser Ala Asn Cys Pro
50 55 60
Asn His Phe Glu Gly His Tyr Gln Tyr Lys Ser Ile Pro Val Glu Asp
65 70 75 80
Asn His Lys Ala Asp Ile Ser Ser Trp Phe Asn Glu Ala Ile Asp Phe
85 90 95
Ile Asp Ser Ile Lys Asn Ala Gly Gly Arg Val Phe Val His Cys Gln
100 105 110
Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Met Arg
115 120 125
Thr Asn Arg Val Lys Leu Asp Glu Ala Phe Glu Phe Val Lys Gln Arg
130 135 140
Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu Leu Gln
145 150 155 160
Phe Glu Ser Gln Val Leu Ala Pro His
165

<210> 16
<211> 169
<212> PRT
<213> Homo sapien

<400> 16
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Cys Gly Thr Pro Leu His Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
20 25 30
Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ala Arg Arg Asp Met Leu
35 40 45
Asp Ala Leu Gly Ile Thr Ala Leu Leu Asn Val Ser Ser Asp Cys Pro
50 55 60
Asn His Phe Glu Gly His Tyr Gln Tyr Lys Cys Ile Pro Val Glu Asp
65 70 75 80
Asn His Lys Ala Asp Ile Ser Ser Trp Phe Met Glu Ala Ile Glu Tyr
85 90 95
Ile Asp Ala Val Lys Asp Cys Arg Gly Arg Val Leu Val His Cys Gln
100 105 110
Ala Gly Ile Ser Arg Ser Ala Thr Ile Cys Leu Ala Tyr Leu Met Met
115 120 125
Lys Lys Arg Val Arg Leu Glu Glu Ala Phe Glu Phe Val Lys Gln Arg
130 135 140
Arg Ser Ile Ile Ser Pro Asn Phe Ser Phe Met Gly Gln Leu Leu Gln
145 150 155 160
Phe Glu Ser Gln Val Leu Ala Thr Ser
165

<210> 17
<211> 171
<212> PRT

<213> Homo sapien

<400> 17

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Ser Glu Arg Ala Leu Ile Ser Gln Cys Gly Lys Pro Val Val Asn Val
 1               5                  10                  15
Ser Tyr Arg Pro Ala Tyr Asp Gln Gly Gly Pro Val Glu Ile Leu Pro
            20                  25                  30
Phe Leu Tyr Leu Gly Ser Ala Tyr His Ala Ser Lys Cys Glu Phe Leu
        35                  40                  45
Ala Asn Leu His Ile Thr Ala Leu Leu Asn Val Ser Arg Arg Thr Ser
    50                  55                  60
Glu Ala Cys Met Thr His Leu His Tyr Lys Trp Ile Pro Val Glu Asp
65                  70                  75                  80
Ser His Thr Ala Asp Ile Ser Ser His Phe Gln Glu Ala Ile Asp Phe
                85                  90                  95
Ile Asp Cys Val Arg Glu Lys Gly Gly Lys Val Leu Val His Cys Glu
            100                 105                 110
Ala Gly Ile Ser Arg Ser Pro Thr Ile Cys Met Ala Tyr Leu Met Lys
        115                 120                 125
Thr Lys Gln Phe Arg Leu Lys Glu Ala Phe Asp Tyr Ile Lys Gln Arg
    130                 135                 140
Arg Ser Met Val Ser Pro Asn Phe Gly Phe Met Gly Gln Leu Leu Gln
145                 150                 155                 160
Tyr Glu Ser Glu Ile Leu Pro Ser Thr Pro Asn
                165                 170
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<210> 18
<211> 180
<212> PRT
<213> Homo sapien

<400> 18

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Ser Gly Ser Phe Glu Leu Ser Val Gln Asp Leu Asn Asp Leu Leu Ser
 1               5                  10                  15
Asp Gly Ser Gly Cys Tyr Ser Leu Pro Ser Gln Pro Cys Asn Glu Val
            20                  25                  30
Thr Pro Arg Ile Tyr Val Gly Asn Ala Ser Val Ala Gln Asp Ile Pro
        35                  40                  45
Lys Leu Gln Lys Leu Gly Ile Thr His Val Leu Asn Ala Ala Glu Gly
    50                  55                  60
Arg Ser Phe Met His Val Asn Thr Asn Ala Asn Phe Tyr Lys Asp Ser
65                  70                  75                  80
Gly Ile Thr Tyr Leu Gly Ile Lys Ala Asn Asp Thr Gln Glu Phe Asn
                85                  90                  95
Leu Ser Ala Tyr Phe Glu Arg Ala Ala Asp Phe Ile Asp Gln Ala Leu
            100                 105                 110
Ala Gln Lys Asn Gly Arg Val Leu Val His Cys Arg Glu Gly Tyr Ser
        115                 120                 125
Arg Ser Pro Thr Leu Val Ile Ala Tyr Leu Met Met Arg Gln Lys Met
    130                 135                 140
Asp Val Lys Ser Ala Leu Ser Ile Val Arg Gln Asn Arg Glu Ile Gly
145                 150                 155                 160
Pro Asn Asp Gly Phe Leu Ala Gln Leu Cys Gln Leu Asn Asp Arg Leu
                165                 170                 175
Ala Lys Glu Gly
            180
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D' Cont